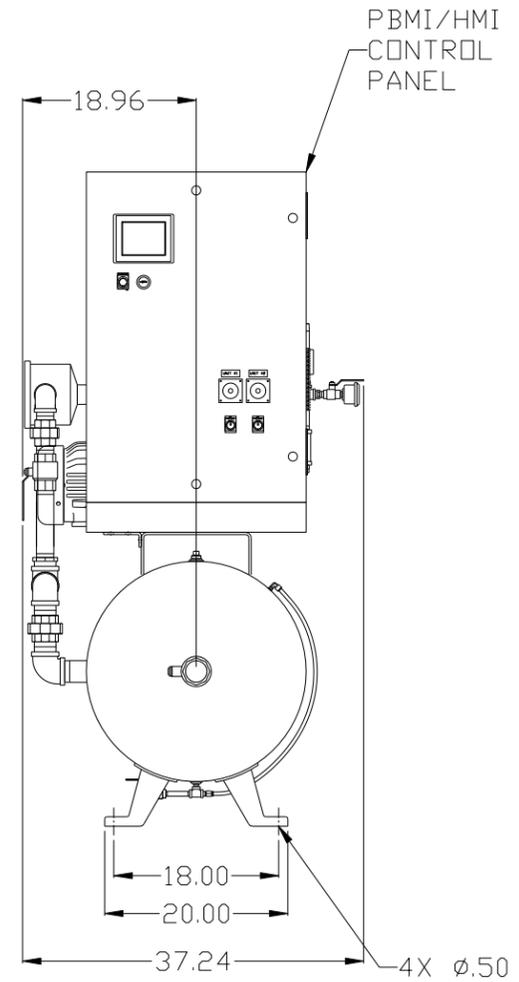
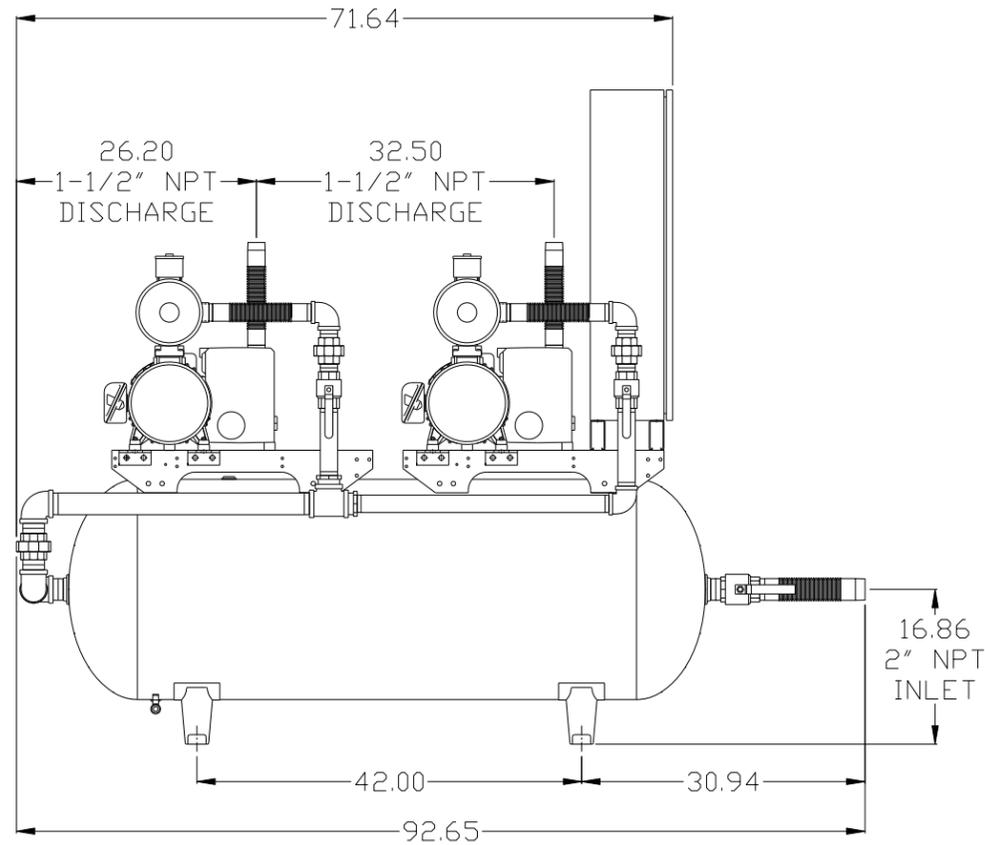
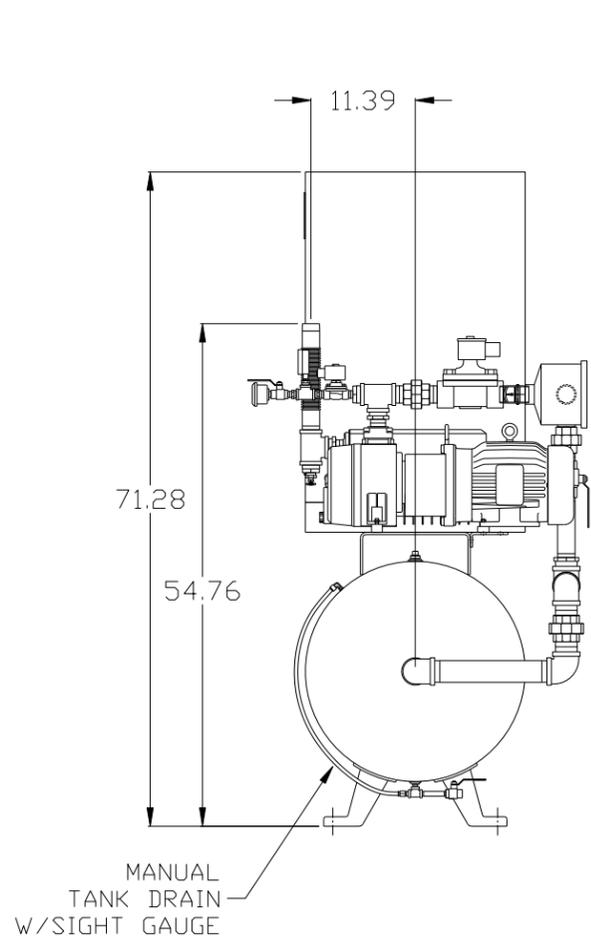


| REV | ZONE | REVISION | DATE | ECN | NAME | CHKD |
|-----|------|---------------------------------|----------|----------|------|------|
| B-1 | ALL | RELEASE TO PRODUCTION | 01/02/13 | PKE0003 | GES | DMS |
| C-1 | 2 C3 | CHANGED GA03100AV TO GA031600AV | 6/24/16 | PKE00137 | AEK | GES |



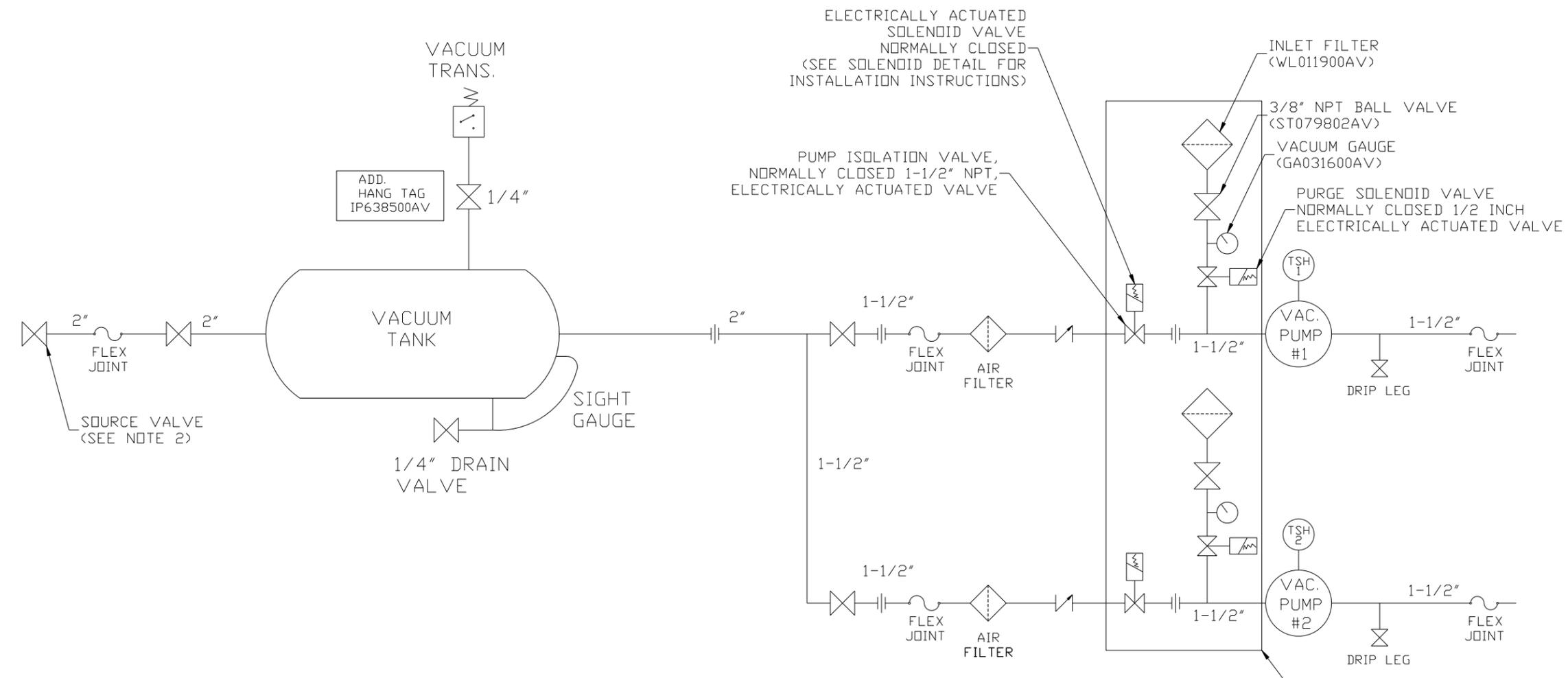
NOTE: AUTO PURGE IS OPTIONAL.

NOTE: A MINIMUM OF 24" CLEARANCE IS RECOMMENDED AROUND THE ENTIRE UNIT. THERE IS ALSO A MINIMUM RECOMMENDED ELECTRICAL PANEL CLEARANCE PER OSHA/ NEC.

NOTE: SYSTEM DESIGNED IN COMPLIANCE WITH U.S. NFPA '99, LATEST EDITION.

| SYMBOL LEGEND | | = ADDITIONAL CONTROL REQ'D | | Drawings to conform to the current revision of the following ANSI standards: | |
|--|-------------|----------------------------|------------|--|------------------|
| ⊖ | MINUS DRAFT | ⊕ | PLUS DRAFT | ⊖ | BRINELL HARDNESS |
| TOLERANCES NOT SPECIFIED | | AUTOCAD REL2008 LT | | DO NOT SCALE DRAWING FOR DIMENSIONS | |
| .XX ± | | INCH | | Sheet 1 of 2 | SCALE 1:10 |
| CONFIDENTIAL DISCLOSURE: This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination. | | | | | |
| DRAWN BY | | CHECKED BY | | APPROVED BY | |
| GES | | DMS | | JBC CT | |
| 01/02/13 | | 01/02/13 | | 01/02/13 01/02/13 | |
| MATERIAL | | N/A | | | |
| PART NAME | | SMALL 5HP LAB VACUUM HORIZ | | | |
| DUPLEX 120G TANK MOUNTED | | DWG NO | | LVD0404 | |
| | | | | SIZE D | |

| REV | ZONE | REVISION | DATE | ECN | NAME | CHK'D |
|-----|------|---------------------------------|----------|---------|------|-------|
| B-1 | ALL | RELEASE TO PRODUCTION | 01/02/13 | PKE0003 | GES | DMS |
| C-1 | 2 C3 | CHANGED GA03100AV TO GA031600AV | 6/24/16 | PKE0137 | AEK | GES |



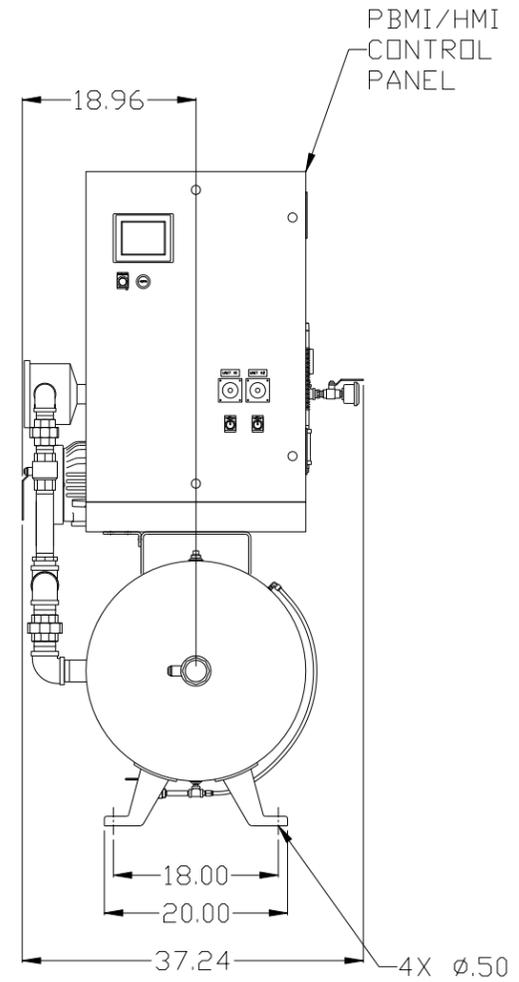
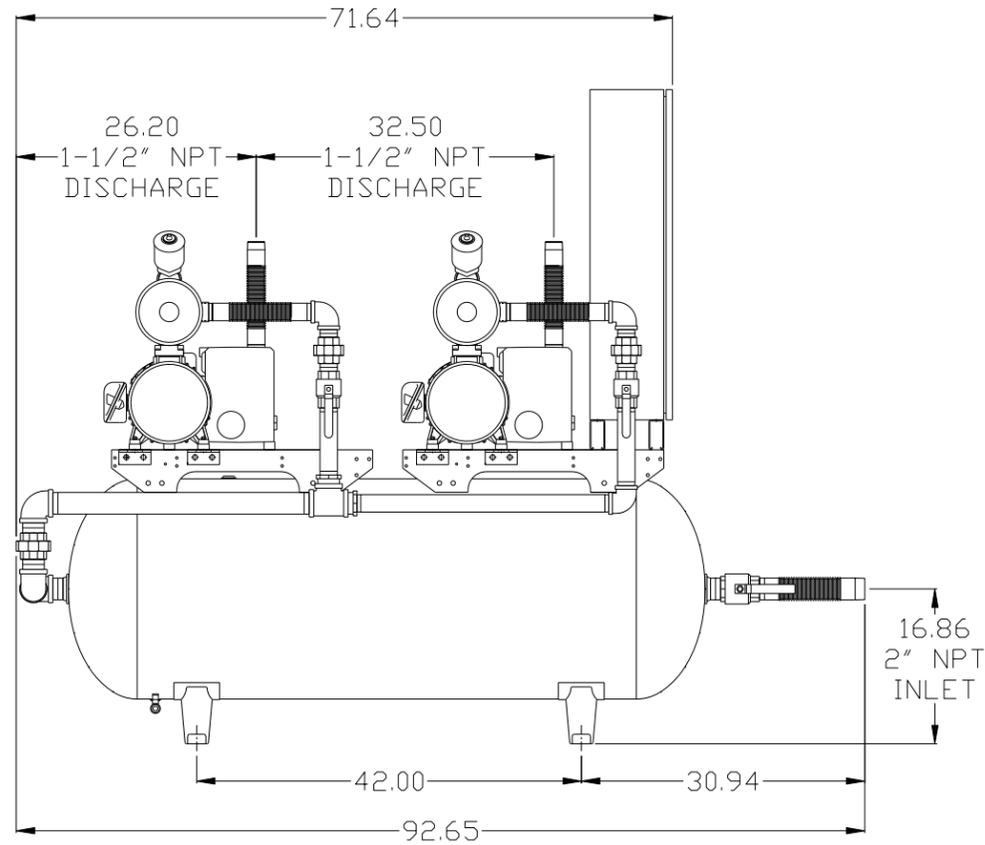
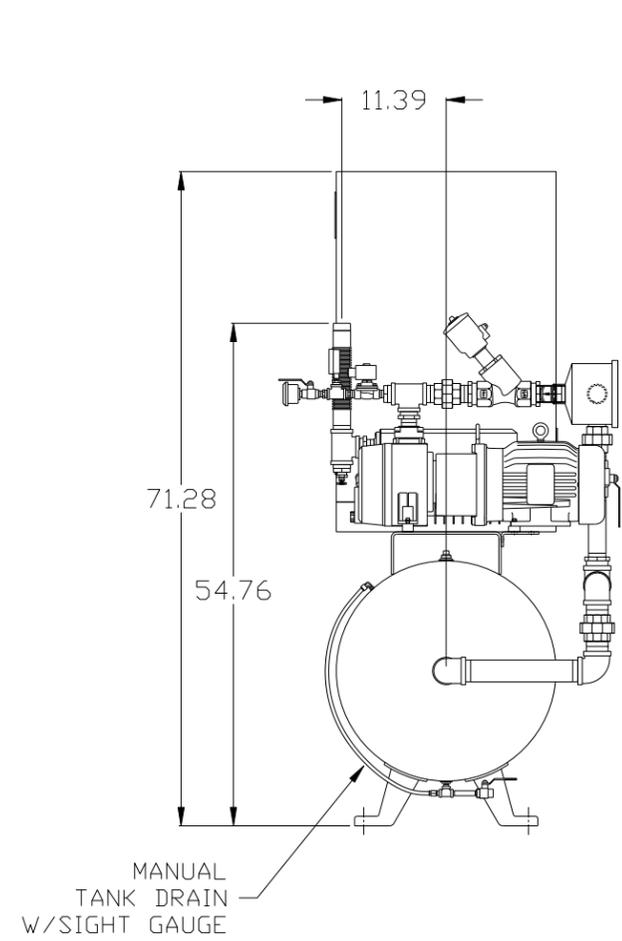
LEGEND

| | | | |
|--|-----------------|--|---------------|
| | TEMP. SWITCH | | VACUUM SWITCH |
| | BUTTERFLY VALVE | | CHECK VALVE |
| | AIR FILTER | | FLEX LINE |
| | BALL VALVE | | UNION |

NOTE:
 1) TSH - TEMPERATURE SWITCH HIGH
 2) PER NFPA THE SYSTEM WILL REQUIRE A SOURCE VALVE (SUPPLIED BY OTHERS).

| | | | | |
|--|---------------|--|-------------------------------------|--|
| SYMBOL LEGEND | | | = ADDITIONAL CONTROL REQ'D | Drawings to conform to the current revision of the following ANSI standards: |
| | = MINUS DRAFT | | = BRINELL HARDNESS | Y14.3 Multi and sectional view dgs. Y14.5M Dimensioning and tolerancing |
| TOLERANCES NOT SPECIFIED | | AUTOCAD REL2008 LT | DO NOT SCALE DRAWING FOR DIMENSIONS | |
| .xx ± | | INCH | Sheet 2 of 2 | SCALE 1:10 |
| CONFIDENTIAL DISCLOSURE This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination. | | | | |
| DRAWN BY | CHECKED BY | APPROVED BY | | |
| GES | DMS | JBC | CT | |
| 01/02/13 | 01/02/13 | 01/02/13 | 01/02/13 | |
| MATERIAL | | N/A | | |
| PART NAME | | 150 PRODUCTION DRIVE, HARRISON, OHIO 45030 Ph: 888-769-7979 FAX: (513) 367-3125 | | |
| DUPLEX LAB VACUUM FLOW SCHEMATIC | | DWG NO | LVD0404 | SIZE D |

| REV | ZONE | REVISION | DATE | ECN | NAME | CHKD |
|-----|------|----------------------------------|----------|---------|------|------|
| B-1 | ALL | RELEASE TO PRODUCTION | 01/02/13 | PKE0003 | GES | DMS |
| C-1 | 2 C3 | CHANGED GA013100AV TO GA031600AV | 6/24/16 | PKE0037 | AEK | GES |



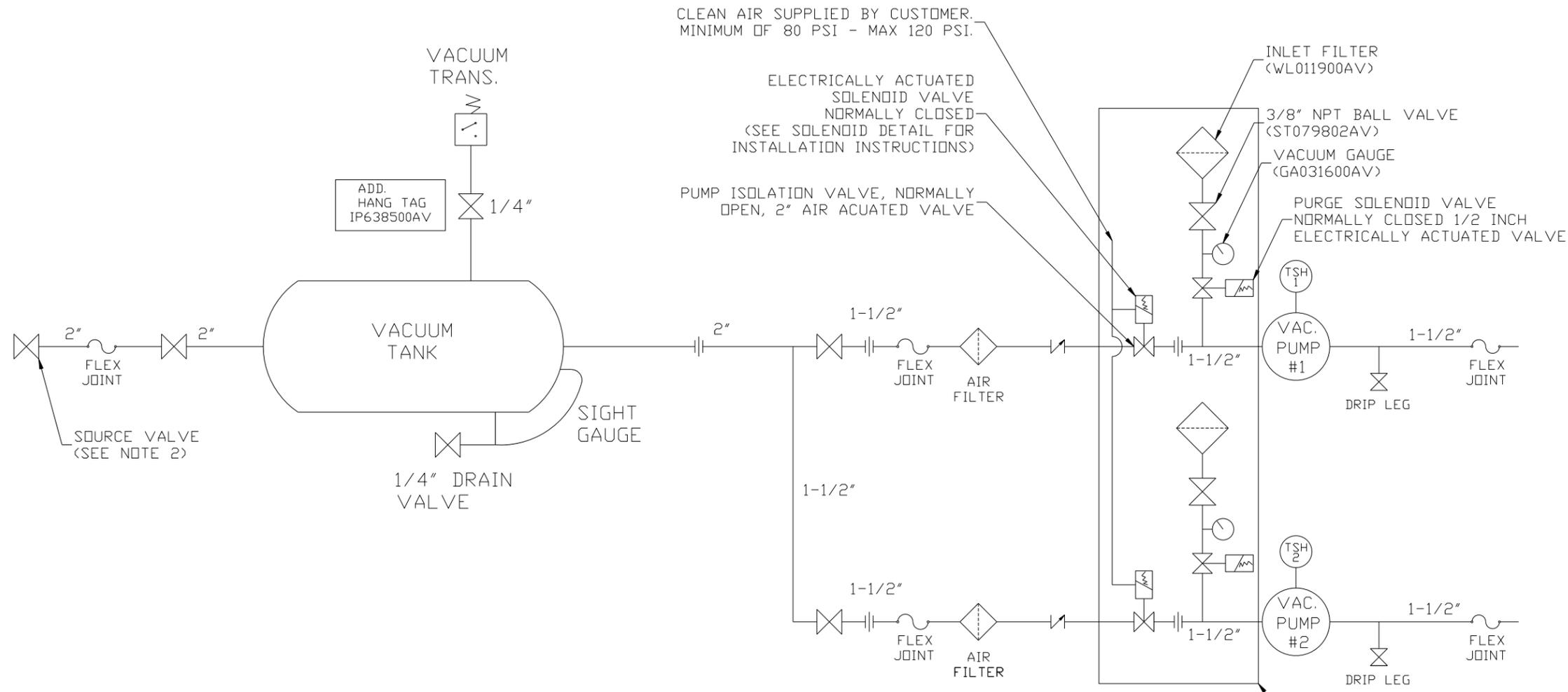
NOTE: AUTO PURGE IS OPTIONAL.

NOTE: A MINIMUM OF 24" CLEARANCE IS RECOMMENDED AROUND THE ENTIRE UNIT. THERE IS ALSO A MINIMUM RECOMMENDED ELECTRICAL PANEL CLEARANCE PER OSHA/ NEC.

NOTE: SYSTEM DESIGNED IN COMPLIANCE WITH U.S. NFPA '99, LATEST EDITION.

| SYMBOL LEGEND | | DRAWINGS TO CONFORM TO THE CURRENT REVISION OF THE FOLLOWING ANSI STANDARDS | |
|--|----------------|--|----------------------|
| ⊖ = MINUS DRAFT | ⊕ = PLUS DRAFT | ⊕ = ADDITIONAL CONTROL REQ'D | ⊕ = BRINELL HARDNESS |
| TOLERANCES NOT SPECIFIED | | DO NOT SCALE DRAWING FOR DIMENSIONS | |
| .XX ± | .XXX ± | AUTOCAD REL2008 LT | Sheet 1 of 2 |
| <DEG> ± | | INCH | SCALE 1:10 |
| CONFIDENTIAL DISCLOSURE: This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination. | | | |
| DRAWN BY | CHECKED BY | APPROVED BY | MFG/MKTG |
| GES | DMS | JBC | CT |
| 01/02/13 | 01/02/13 | 01/02/13 | 01/02/13 |
| MATERIAL N/A | | | |
| PART NAME SMALL 5HP LAB VACUUM HORIZ | | 150 PRODUCTION DRIVE, HARRISON, OHIO 45030 Ph: 888-769-7979 FAX: (513) 367-3125 | |
| DWG NO. DUPLEX 120G TANK MOUNTED | | SIZE D | |
| | | LVD0404 | |

| REV | ZONE | REVISION | DATE | ECN | NAME | CHKD |
|-----|------|---------------------------------|----------|----------|------|------|
| B-1 | ALL | RELEASE TO PRODUCTION | 01/02/13 | PHL0000 | GES | DMS |
| C-1 | 2 C3 | CHANGED GA03100AV TO GA031600AV | 6/24/16 | PXEC0137 | AEK | GES |



CLEAN AIR SUPPLIED BY CUSTOMER.
MINIMUM OF 80 PSI - MAX 120 PSI.

ELECTRICALLY ACTUATED
SOLENOID VALVE
NORMALLY CLOSED
(SEE SOLENOID DETAIL FOR
INSTALLATION INSTRUCTIONS)

PUMP ISOLATION VALVE, NORMALLY
OPEN, 2" AIR ACUATED VALVE

INLET FILTER
(WL011900AV)

3/8" NPT BALL VALVE
(ST079802AV)

VACUUM GAUGE
(GA031600AV)

PURGE SOLENOID VALVE
NORMALLY CLOSED 1/2 INCH
ELECTRICALLY ACTUATED VALVE

2" FLEX JOINT
SOURCE VALVE
(SEE NOTE 2)

ADD.
HANG TAG
IP638500AV

VACUUM
TRANS.
1/4"
VACUUM
TANK
SIGHT
GAUGE
1/4" DRAIN
VALVE

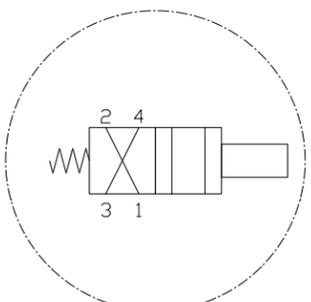
1-1/2" FLEX JOINT AIR FILTER
1-1/2" FLEX JOINT AIR FILTER
1-1/2" FLEX JOINT
VAC. PUMP #1
DRIP LEG
1-1/2" FLEX JOINT
VAC. PUMP #2
DRIP LEG
1-1/2" FLEX JOINT

NOTE:
A 1/4 INCH VENT PLUG IS
LOCATED IN THE FILTER HOUSING.

AUTO PURGE
IS OPTIONAL

LEGEND

| | | | |
|--|-----------------|--|---------------|
| | TEMP. SWITCH | | VACUUM SWITCH |
| | BUTTERFLY VALVE | | CHECK VALVE |
| | AIR FILTER | | FLEX LINE |
| | BALL VALVE | | UNION |

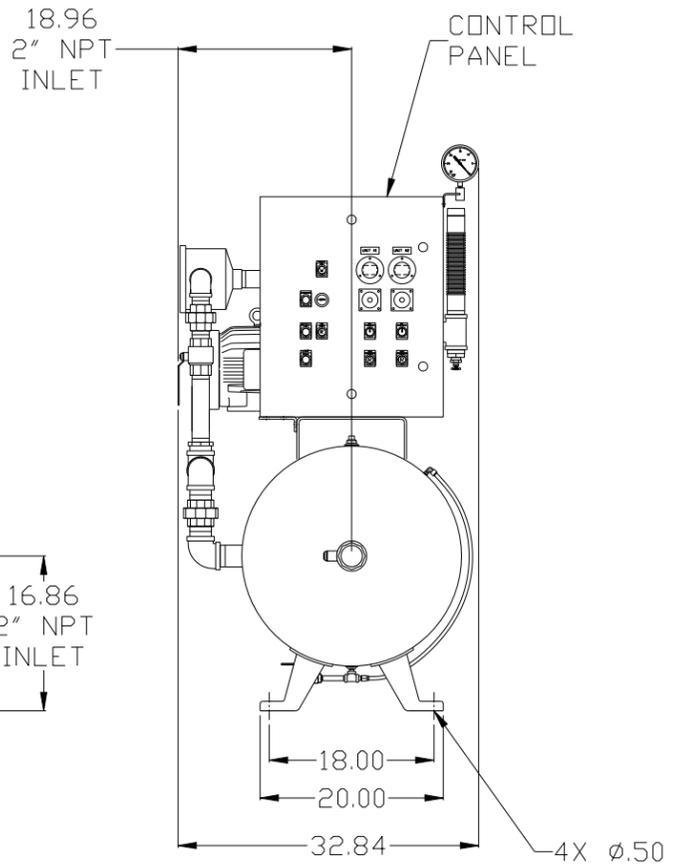
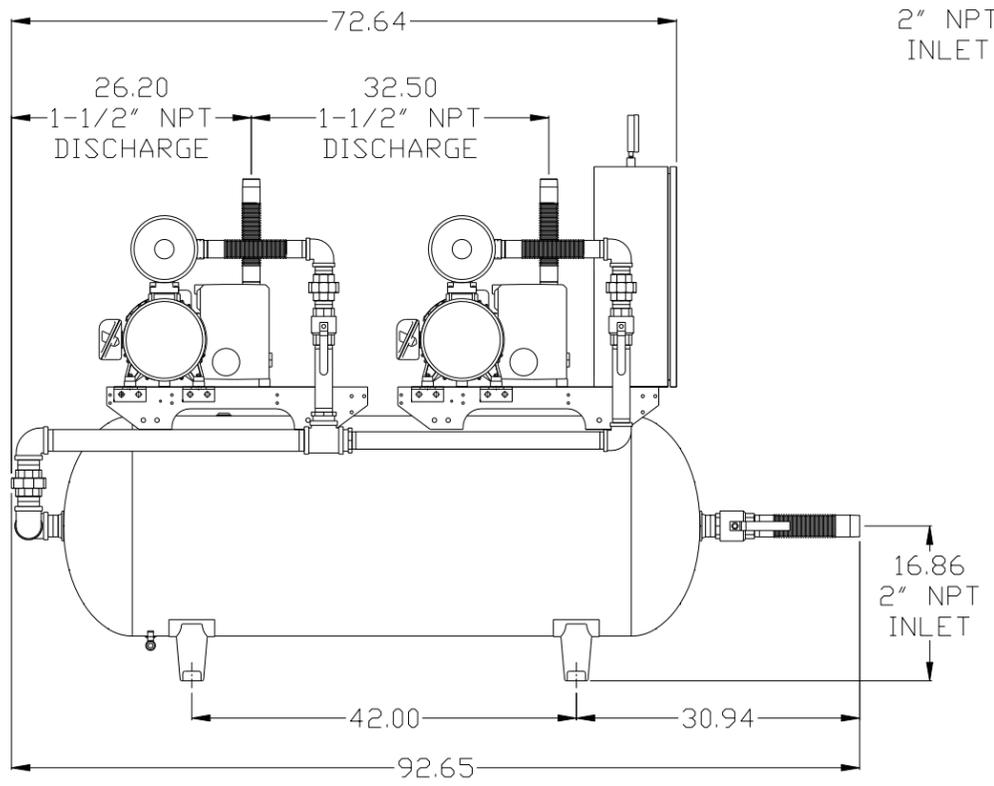
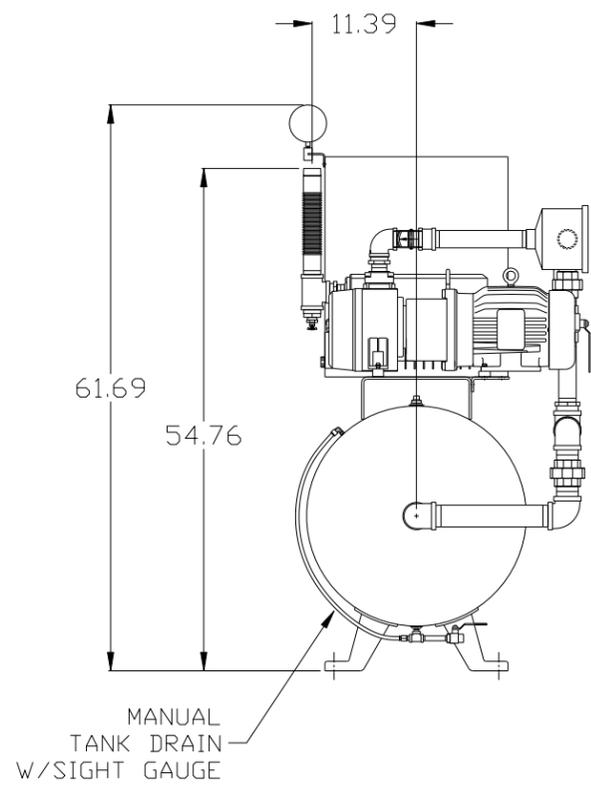


SOLENOID DETAIL:
1) VALVE - INPUT #1
2) MUFFLER - INPUT #2
3) SUPPLY AIR - INPUT #4

NOTE:
1) TSH - TEMPERATURE SWITCH HIGH
2) PER NFPA THE SYSTEM WILL REQUIRE A SOURCE VALVE (SUPPLIED BY OTHERS).

| | | | | |
|--|--------------------|-------------------------------------|----------------------|--|
| SYMBOL LEGEND | | | = ADDITIONAL CONTROL | Drawings to conform to the current revision of the following ANSI standards: |
| | = MINUS DRAFT | | = REQUIRED | Y14.3 Multi and sectional view dwgs. |
| | = PLUS DRAFT | | = BRINELL HARDNESS | Y14.5M Dimensioning and tolerancing |
| TOLERANCES NOT SPECIFIED | | DO NOT SCALE DRAWING FOR DIMENSIONS | | |
| .XX ± | AUTOCAD REL2008 LT | Sheet 2 of 2 | | SCALE 1:10 |
| .XXX ± | INCH | | | |
| <<DEG.> ± | | | | |
| CONFIDENTIAL DISCLOSURE This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination. | | | | |
| DRAWN BY | CHECKED BY | APPROVED BY | ENGINEERING | MFG/MRKTG |
| GES | DMS | JBC | CT | |
| 01/02/13 | 01/02/13 | 01/02/13 | 01/02/13 | |
| MATERIAL | | N/A | | |
| PART NAME | | DUPLIX LAB VACUUM | | |
| DWG NO | | LV00404 | | |
| FLOW SCHEMATIC | | SIZE D | | |

| REV | ZONE | REVISION | DATE | ECN | NAME | CHKD |
|-----|------|---------------------------------|----------|---------|------|------|
| B-1 | ALL | RELEASE TO PRODUCTION | 01/02/13 | PKE0003 | GES | DMS |
| C-1 | 2 C3 | CHANGED GA03100AV TO GA031600AV | 6/24/16 | PKE0037 | AEK | GES |

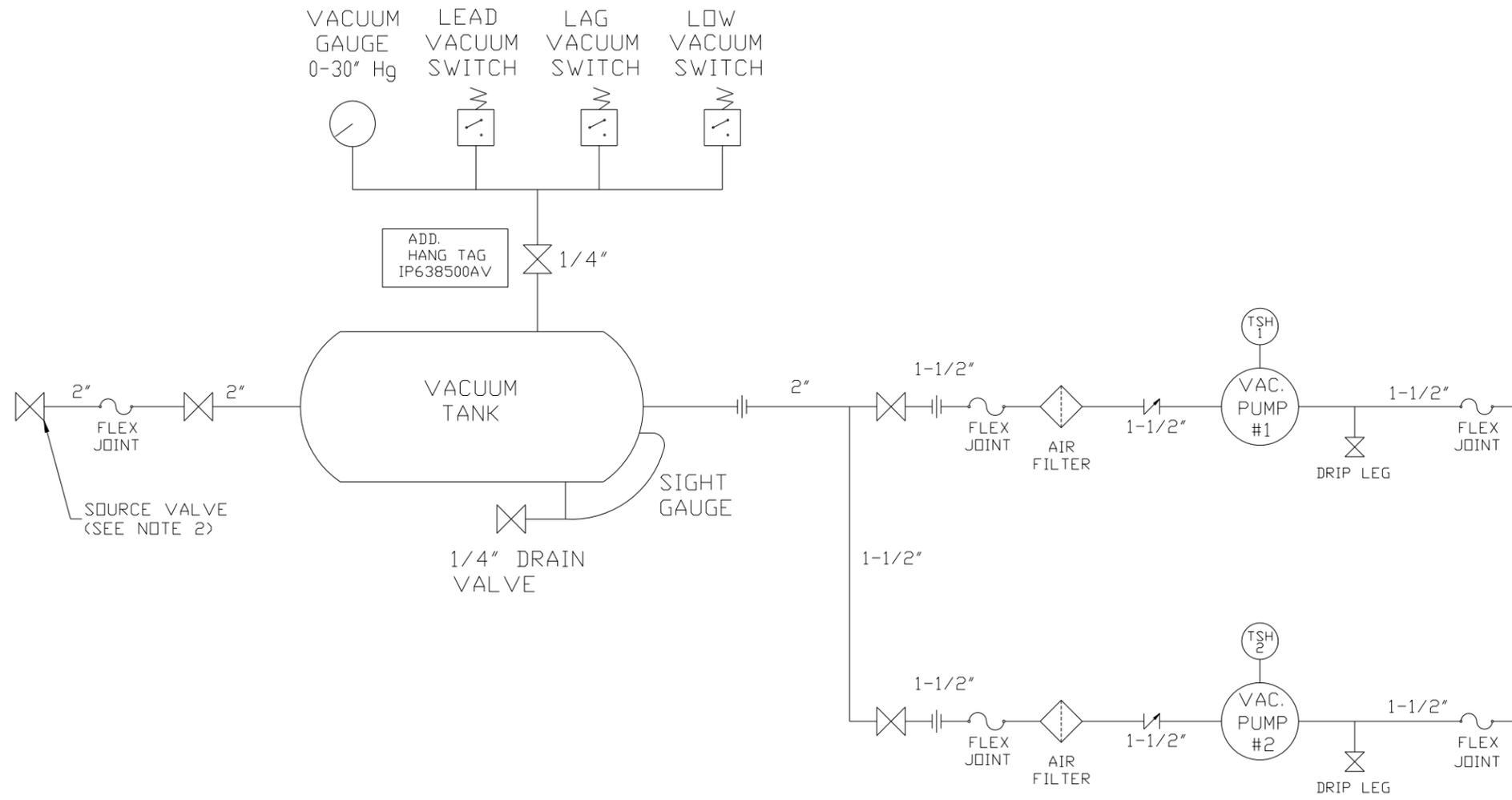


NOTE: A MINIMUM OF 24" CLEARANCE IS RECOMMENDED AROUND THE ENTIRE UNIT. THERE IS ALSO A MINIMUM RECOMMENDED ELECTRICAL PANEL CLEARANCE PER OSHA/ NEC.

NOTE: SYSTEM DESIGNED IN COMPLIANCE WITH U.S. NFPA '99, LATEST EDITION.

| | | | |
|--|--|--|--|
| SYMBOL LEGEND ⊖ = MINUS DRAFT ⊕ = PLUS DRAFT ⊕ = ADDITIONAL CONTROL REQ'D ⊕ = BRINELL HARDNESS | | Drawings to conform to the current revision of the following ANSI standards: Y14.3 Multi and sectional view dgs. Y14.5M Dimensioning and tolerancing | |
| TOLERANCES NOT SPECIFIED .XX ± .XXX ± \angle(DEG) ± | | AUTOCAD REL2008 LT INCH DO NOT SCALE DRAWING FOR DIMENSIONS Sheet 1 of 2 SCALE 1:10 | |
| CONFIDENTIAL DISCLOSURE This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination. | | | |
| DRAWN BY GES | | CHECKED BY DMS | |
| APPROVED BY JBC | | MFG/MKTG CT | |
| MATERIAL N/A | | DATE 01/02/13 | |
| PART NAME SMALL 5HP LAB VACUUM HORIZ | | DATE 01/02/13 | |
| DUPLEX 120G TANK MOUNTED | | DATE 01/02/13 | |
| DWG NO LVD0404 | | SIZE D | |

| REV | ZONE | REVISION | DATE | ECN | NAME | CHKD |
|-----|------|---------------------------------|----------|---------|------|------|
| B-1 | ALL | RELEASE TO PRODUCTION | 01/02/13 | PKE0003 | GES | DMS |
| C-1 | 2 C3 | CHANGED GA03100AV TO GA031600AV | 6/24/16 | PKE0037 | AEK | GES |



NOTE:
A 1/4 INCH VENT PLUG IS
LOCATED IN THE FILTER HOUSING.

LEGEND

| | | | |
|--|-----------------|--|---------------|
| | TEMP. SWITCH | | VACUUM SWITCH |
| | BUTTERFLY VALVE | | CHECK VALVE |
| | AIR FILTER | | FLEX LINE |
| | BALL VALVE | | UNION |

NOTE:
1) TSH - TEMPERATURE SWITCH HIGH
2) PER NFPA THE SYSTEM WILL REQUIRE A SOURCE VALVE (SUPPLIED BY OTHERS).

| | | | | | |
|--|-------------|----------------------------------|-------------------------------------|--|------|
| SYMBOL LEGEND | | | ADDITIONAL CONTROL REQ'D | Drawings to conform to the current revision of the following ANSI standards. | |
| | MINUS DRAFT | | BRINELL HARDNESS | Y14.3 Multi and sectional view dgs. Y14.5M Dimensioning and tolerancing | |
| TOLERANCES NOT SPECIFIED | | AUTOCAD REL2008 LT | DO NOT SCALE DRAWING FOR DIMENSIONS | | |
| .XX ± | | INCH | Sheet 2 of 2 | SCALE | 1:10 |
| CONFIDENTIAL DISCLOSURE This drawing is the property of POWEREX, INC. of the SCOTT FETZER COMPANY and subject to return on demand. Its contents are confidential and must not be copied or submitted to outside parties for use or examination. | | | | | |
| DRAWN BY | CHECKED BY | APPROVED BY | ENGINEERING | MFG/MKGTG | |
| GES | DMS | JBC | CT | | |
| 01/02/13 | 01/02/13 | 01/02/13 | 01/02/13 | | |
| MATERIAL | | N/A | | | |
| PART NAME | | DUPLIX LAB VACUUM FLOW SCHEMATIC | | 150 PRODUCTION DRIVE, HARRISDN, OHIO 45030 Ph: 888-769-7979 FAX: (513) 367-3125 | |
| DWG NO | | LV00404 | | SIZE D | |